

interval between them. The true longitude of  $\odot$  was  $0^s 29^{\circ} 20' 6''$ . The mean anomaly of  $\Upsilon$   $11^s 17^{\circ} 42' 32''$ , his geocentrick place  $4^s 18^{\circ} 31' 34''$ , with lat. north  $1^{\circ} 25' 30''$ . The mean anomaly of  $\delta$   $2^s 3^{\circ} 7' 47''$ , his geocentrick place  $4^s 18^{\circ} 32' 28''$ , with lat. north,  $1^{\circ} 16' 22''$ . The difference of longitude is  $0' 54''$ , of lat.  $9' 8''$ , at which small distance to the bare eye they might well seem to have no interval or space between them.

“Anno Christi 1170. September the 13th, at midnight, two of the planets were so conjoined that it appeared as if they had been one and the same star, but they were presently separated. *Gervasii Chronicon*.

“These two planets were  $\Upsilon$  and  $\delta$ , being so near together that they seemed as one star, but to some eyes a little distinguished.

“The sidereal longitude of the Sun was by our tables  $5^s 5^{\circ} 26' 31''$ . The mean anomaly of  $\Upsilon$   $7^s 23^{\circ} 51' 50''$ , his geocentric place  $1^s 19^{\circ} 16' 3''$ , with lat. south  $42' 44''$ . The mean anomaly of  $\delta$   $7^s 27^{\circ} 13' 49''$ , his geocentric place,  $1^s 19^{\circ} 8' 55''$ , and lat. south  $39' 1''$ . The difference of longitude is  $7' 8''$ , of lat.  $3' 43''$ , and hence the distance of their centres  $8''$ .”

*Upton Helions Rectory, Crediton,*  
1874, March 9.

---

*On the relative Magnitudes of the Fifth and Sixth Stars in the Trapezium of Orion.* By Thomas Barneby, Esq.

Having noticed the discussion at the Meeting of the Society held on the 9th of January last, concerning the relative sizes of the 5th and 6th Stars in the Trapezium of Orion, and having felt an interest in the appearance of those Stars, ever since reading in an early edition of Herschel's *Outlines of Astronomy*, that to perceive *both* was one of the severest tests which could be applied to a telescope, I venture to think the scrutiny I have made of them, with my 9-inch object-glass by Cooke, which I have been told is the best he ever made, may be acceptable to the Society.

On first turning this telescope on the Trapezium some years ago, I saw the 5th star distinctly, but I could not detect the 6th for a considerable time, which caused me some disappointment; but when I first perceived it, I found it so easy that I almost fancied I must have been looking in the wrong place for it before. I could then see it easily with a micrometer-eyepiece, which had evident marks of use by its former owner, the late Captain Jacob. I afterwards from time to time saw the 5th and 6th stars without difficulty, for a considerable period, but I always considered the 5th as by far the more easily seen.

For the last two or three seasons however (before the present),

March 1874. *Mr. Barneby, On Stars in Trapezium of Orion.* 249

I have often looked in vain for the 6th star, and I began to think the object-glass was out of adjustment, or my eyesight impaired.

Since the constellation has been near the meridian of my Observatory, at a convenient time of night in the present season, I have occasionally examined the Trapezium carefully, and the following is the result :—

I could not detect the 6th star until the 21st of January last.

On that night I saw the 5th and 6th stars distinctly, but the 5th appeared much the larger and brighter of the two.

On the 4th of February last, I saw both stars again, when decidedly the 6th was the more conspicuous, and apparently much the larger.

On the 8th of February last, I could see the 5th distinctly, but the 6th was invisible to me, and also to my assistant, who has a keen and younger eye.

Now I particularly noticed that the 4th of February, when the 6th star appeared the larger, was the best telescopic night ; and it appears to me probable that the 6th is really the larger star, but that partly from its blue colour, and partly from its greater propinquity to its primary, and the irradiation of the primary, it is not to be seen so well as the 5th, except on a superior telescopic night.

Is it possible that the variability in the appearance of the 5th and 6th stars, or either of them, can be occasioned by any *motion of translation in space*, such as that indicated by Mr. Huggins in the neighbouring stars *Rigel* and *Sirius*, and other stars, as well as in *Nebulæ* ?

I judged partly of the night of the 4th of February last by the close companion of  $\zeta$  *Orionis*, which I have found by experience is not to be seen with a clear disk, detached from its primary except on a good night, and on the 4th of February last it was.

There is a great difference in the apparent disks of stars : for instance, the principal star in  $\sigma$  *Orionis* always appears to me as if a flame were creeping about it, and I would direct attention in this respect to  $\lambda$  *Orionis*, and the pointed little reddish bright star, one of the four which attend it, and to the quiet and very beautiful appearance of  $\rho$  1 and 2 *Orionis* which resemble in miniature ‘pulcherrima’  $\epsilon$  *Bootis*, all beautiful objects. I found also that, on the night of the 4th of February last, my telescope revealed the neighbourhood of  $\lambda$  *Orionis* bespangled with very minute bright stars, like a loose cluster.

I viewed these objects again on the 7th of March instant, when I saw the 6th star as well as the 5th very distinctly, and I considered the 6th the larger.

The night was again telescopically good, although not so good as on the 4th of February last.

I have never seen the additional stars in the Trapezium.

On each of the nights above mentioned the nebulous appearance

250 *Mr. Carrington, Obituary Notice of Prof. Chevallier.* xxxiv. 5,

in *Orion* was very distinctly seen, with its well-known streamers, some of which remind me of the wreaths of smoke which issue from under an extinguisher when putting out the light of a candle.

*Morton House Observatory, Worcester,  
1874, March 11.*

---

*Remarks on the Obituary of the late Rev. Professor Temple Chevallier, B.D., Astronomische Nachrichten, 1968, and Monthly Notices, vol. xxxiv. No. 4, pp. 138, 139. By R. C. Carrington, Esq., F.R.S.*

In both publications there appears the same paragraph, nearly word for word, although the first is signed John J. Plummer and the last R. J. K. which I take to be R. J. Knight.\* I listened with much attention to the reading of the obituary by Mr. Dunkin, and should have risen to contradict the paragraph on the spot if I had heard it, but no, it was not read, and there was not anything in the report to which I could take exception. The paragraph is: "He was the first to institute in England the regular, continuous observation of the Solar Spots, which has since led to important results. The methods he employed in these observations were afterwards adopted by Mr. Carrington (at one time Observer at Durham), who has made a similar series of observations with marked success; and astronomers may perhaps feel disposed to regret that Mr. Chevallier's talents were too much occupied by clerical and professorial work to admit of the full development of his powers in the field of original research."

Now, I hold that Harriot was the "first to institute in England the regular, continuous observations of the Solar Spots," and he observed them from December 8, 1610, to January 18, 1613, as I know from having had his observations in my hands to copy at Petworth House, on September 12, 1857.

Secondly, I have to deny altogether the assertion, twice repeated, that "the methods employed by Professor Chevallier were those afterwards adopted by Mr. Carrington," for I left Durham finally on April 8, 1852, and it is recorded by me in my astrono-

\* This may probably be explained on the supposition that Mr. Plummer forwarded to the writer of the obituary notice some notes relating to Professor Chevallier's astronomical work at Durham, and that these notes were also incorporated in the communication sent by Mr. Plummer to the *Astronomische Nachrichten*. We may take this opportunity of remarking that at the January meeting, 1849, Professor Chevallier exhibited a volume containing diagrams and observations, the result of "the regular, continuous observation of the Solar Spots," on which he had been employed some time, and that he expressed his intention of presenting the volume to the Society after he had completed the series of observations. In conformity with this intention, Professor Chevallier presented, on July 2, 1851, his valuable series of observations, bound in two volumes, both of which are now in the Society's Library.—[EDITOR.]